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GAPDS Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant GAPDS.
Catalog # AT2153a

Product Information

Application	WB, IHC, E
Primary Accession	O14556
Other Accession	BC036373
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 kappa
Clone Names	2E3-2E10
Calculated MW	44501

Additional Information

Gene ID	26330
Other Names	Glyceraldehyde-3-phosphate dehydrogenase, testis-specific, Spermatogenic cell-specific glyceraldehyde 3-phosphate dehydrogenase 2, GAPDH-2, Spermatogenic glyceraldehyde-3-phosphate dehydrogenase, GAPDHS, GAPD2, GAPDH2, GAPDS
Target/Specificity	GAPDS (AAH36373, 1 a.a. ~ 408 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	GAPDS Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

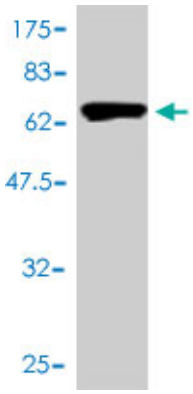
Background

This gene encodes a protein belonging to the glyceraldehyde-3-phosphate dehydrogenase family of enzymes that play an important role in carbohydrate metabolism. Like its somatic cell counterpart, this sperm-specific enzyme functions in a nicotinamide adenine dinucleotide-dependent manner to remove hydrogen and add phosphate to glyceraldehyde 3-phosphate to form 1,3-diphosphoglycerate. During spermiogenesis, this enzyme may play an important role in regulating the switch between different energy-producing pathways, and it is required for sperm motility and male fertility.

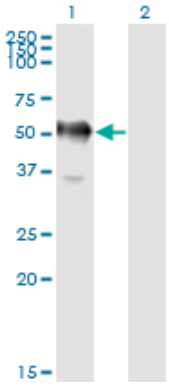
References

1.Down-Regulation of miR-96 by Bone Morphogenetic Protein Signaling is Critical for Vascular Smooth Muscle Cell Phenotype Modulation.Kim S, Hata A, Kang H.J Cell Biochem. 2013 Dec 4. doi: 10.1002/jcb.24730.2.Inhibition of microRNA-302 (miR-302) by bone morphogenetic protein 4 (BMP4) facilitates the BMP signaling pathway.Kang H, Louie J, Weisman A, Sheu-Gruttadauria J, Davis-Dusenbery BN, Lagna G, Hata A.J Biol Chem. 2012 Sep 17. [Epub ahead of print]3.Isolation of antibodies against different protein conformations using immunoaffinity chromatography.Kuravsky ML, Schmalhausen EV, Pozdnyakova NV, Muronetz VI.Anal Biochem. 2012 Apr 3. [Epub ahead of print]4.Bone morphogenetic protein 4 promotes vascular smooth muscle contractility by activating miR-21, which downregulates expression of the family of Dedicator of Cytokinesis (DOCK) proteins.Kang H, Davis-Dusenbery BN, Nguyen PH, Lal A, Lieberman J, Van Aelst L, Lagna G, Hata A.J Biol Chem. 2011 Dec 9.5.Down-regulation of KLF4 by MIR-143/145 is critical for modulation of vascular smooth muscle cell phenotype by TGF-{beta} and BMP.Davis-Dusenbery BN, Chan MC, Reno KE, Weisman AS, Layne MD, Lagna G, Hata A.J Biol Chem. 2011 Aug 12;286(32):28097-110. Epub 2011 Jun 13.6.The amiloride derivative phenamil attenuates pulmonary vascular remodeling by activating NFAT and the BMP signaling pathway.Chan MC, Weisman AS, Kang H, Nguyen PH, Hickman T, Mecker SV, Hill NS, Lagna G, Hata A.Mol Cell Biol. 2010 Dec 6. [Epub ahead of print]7.Smad proteins bind a conserved RNA sequence to promote microRNA maturation by Drosha.Davis BN, Hilyard AC, Nguyen PH, Lagna G, Hata A.Mol Cell. 2010 Aug 13;39(3):373-84.8.Molecular basis for antagonism between PDGF and the TGFbeta family of signalling pathways by control of miR-24 expression.Chan MC, Hilyard AC, Wu C, Davis BN, Hill NS, Lal A, Lieberman J, Lagna G, Hata A.EMBO J. 2010 Feb 3;29(3):559-73. Epub 2009 Dec 17.9.Induction of microrna-221 by platelet-derived growth factor signaling is critical for modulation of vascular smooth muscle phenotype.Davis BN, Hilyard AC, Nguyen PN, Lagna G, Hata A.J Biol Chem. 2009 Feb 6;284(6):3728-38. Epub 2008 Dec 15.10.SMAD proteins control DROSHA-mediated microRNA maturation.Davis BN, Hilyard AC, Lagna G, Hata A.Nature. 2008 Jul 3;454(7200):56-61. Epub 2008 Jun 11.11.Investigation of glyceraldehyde-3-phosphate dehydrogenase from human sperms.Shchutskaya YY, Elkina YL, Kuravsky ML, Bragina EE, Schmalhausen EV.Biochemistry (Mosc). 2008 Feb;73(2):185-91.

Images



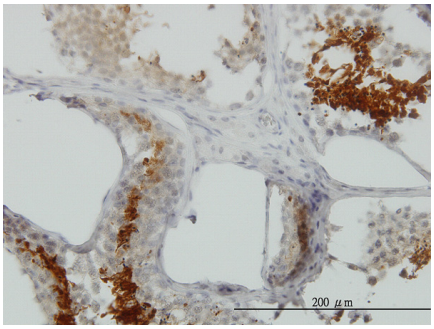
Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (70.62 KDa) .



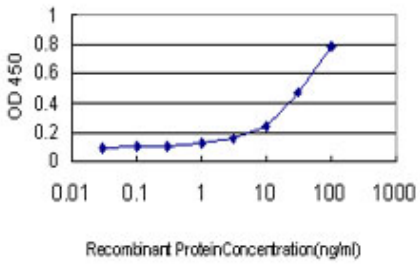
Western Blot analysis of GAPDHS expression in transfected 293T cell line by GAPDS monoclonal antibody (M01), clone 2E3-2E10.

Lane 1: GAPDHS transfected lysate(44.5 KDa).
Lane 2: Non-transfected lysate.

Immunoperoxidase of monoclonal antibody to GAPDHS on formalin-fixed paraffin-embedded human testis.



[antibody concentration 1.5 ug/ml]



Detection limit for recombinant GST tagged GAPDHS is approximately 1ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.